

IB-HIM

High performance infiltration mortar

quick-mix
A trademark of **sievert**



Technical mineral high-performance infiltration mortar for the infiltration of quick-mix IB-SDF steel wire fibres in the quick-mix IB steel system

High performance infiltration mortar acc. EN 1504-6

- tested in accordance with DIN EN 1504 Part 6 for the protection and repair of concrete support structures
- Application thickness in the quick-mix IB steel system: 20 – 45 mm
- Mortar compressive strengths:
 - ≥ 20 N/mm² (1d)
 - ≥ 40 N/mm² (7d)
 - ≥ 55 N/mm² (28d)
- System compressive strengths in the quick-mix IB steel system:
 - ≥ 35 N/mm² (1d)
 - ≥ 65 N/mm² (7d)
 - ≥ 90 N/mm² (28d)



APPLICATIONS

- specially developed for the mechanical infiltration of the quick-mix IB-SDF steel wire fibres in the quick-mix IB steel system
- the quick-mix IB-HIM high-performance infiltration mortar can only be used in conjunction with the quick-mix IB-SDF steel wire fibres in the quick-mix IB steel system
- for strengthening floors of all kinds in the quick-mix IB steel system
- in combination with the quick-mix IB-SDF steel wire fibres, this results in a suitable substrate for a variety of surface coverings in the quick-mix IB steel system
- for the floor (when used on ceilings, the static proof of the load-bearing capacity for the entire quick-mix IB steel system must be provided)
- for interior and external use

PROPERTIES

- usable in a force-locked combination with the quick-mix IB-SDF steel wire fibres
- mineral
- highly free-flowing
- vapour diffusion permeable
- suitable for pumping
- When used in the quick-mix IB steel system with the quick-mix IB-SDF steel wire fibres, the system as such is
 - load-bearing after 18 hours
 - resistant to weather, frost and de-icing salt
 - impermeable to water
 - vapour diffusion permeable
 - chemical resistant
- highly wear-resistant
- conductive
- gradients up to 3% can be produced

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COMPOSITION

- high-quality binders according to DIN EN 197-1
- Specially matched quartzitic aggregates according to EN 13139
- additives for regulating and improving workability and product properties
- low-chromate

SUBSTRATE

- The **substrate in the quick-mix IB steel system** must be load-bearing and clean-swept. Existing floor joints up to 20 mm, cracks, breakouts, etc. are reworked with the system without further preparatory work. To prevent the dish-shaped curvature of the entire surface, a quick-mix VBA connecting anchor is installed approx. every 4 sqm in accordance with the technical data sheet. The number of connecting anchors in doors and gates is to be increased where appropriate. Alternatively, cavities and breakouts in the substrate can be closed quickly in advance with a cement mortar / cement screed, e.g. strasser ZFE-S fine cement screed. Moisture / residual moisture in the substrate is not relevant.

PROCESSING

Temperature	<ul style="list-style-type: none">■ Do not process and allow to dry out at air, material and substrate temperatures below +5 °C and with expected night frost as well as above +35 °C, direct sunlight and/or strong wind.
Mixing / Preparation / Processing	<ul style="list-style-type: none">■ When mixing manually, first place the quantity of water specified in the technical data in a clean container and then sprinkle in dry mortar. Use clean tap water.■ use a suitable agitator to mix the material until smooth and free of lumps. Leave to rest for a moment and then mix again, adding more water, if required, to achieve the right consistency for applying.■ Do not mix with other products and/or other substances.■ Machine-processing is possible with suitable mixing pumps.■ In the case of mechanical installation, the slump flow must be adjusted in accordance with the strasser machine technology guidelines.■ Slump flow: 35 cm. Caution: To determine the slump flow on the strasser slump flow plate, the slump flow ring may only be filled halfway (set a marking).
Processing	<ul style="list-style-type: none">■ Pour high-performance infiltration mortar onto the steel wire fibre carpet made from the quick-mix IB-SDF steel wire fibres and provided with a protective fabric, or pump it mechanically until the height of the steel wire fibre carpet is completely infiltrated. The protective fabric secures the position of the steel wire fibres during infiltration. As a protective fabric we recommend conventional reinforcement meshes (e.g. akurit fine GF reinforcement mesh).
Processing / Working time	<ul style="list-style-type: none">■ approx. 90 minutes■ The stated times apply for a temperature of +20°C and relative humidity of 65%.■ Mortar that has already started to harden must never be thinned down with additional water, remixed or applied.
Drying / Hardening	<ul style="list-style-type: none">■ If the high-performance infiltration mortar in the quick-mix IB steel system is not provided with a top covering within 3 working days, the fresh mortar must be post-treated over a period of at least 3 – 5 days and protected against excessive drying out, e.g. by wind, draughts or solar radiation.■ Low temperatures lead to delayed strength development.
Cleaning the tools	<ul style="list-style-type: none">■ Clean all tools and equipment with water immediately after use.

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PROCESSING

Notes

- Due to the mineral aggregates and the manual execution, an irregular visual appearance in the surface cannot be excluded.
- Craquelure cracks (crack width up to 0.2 mm) in the surface and in retracting corners are not a defect.
- For later use, the substrate system of the quick-mix IB steel system created, consisting of the quick-mix IB-SDF steel wire fibres and the quick-mix IB-HIM high-performance infiltration mortar, must be given a top covering approved in the quick-mix IB steel system (e.g. strasser IB 20 industrial floor).
- Steel wire fibres of the quick-mix IB steel system that are still protruding must be mechanically removed after hardening of the quick-mix IB-HIM high-performance infiltration mortar.
- Possible partially altered sound when performing a tapping test on the surfaces produced in the quick-mix IB steel system, consisting of the quick-mix IB-SDF steel wire fibres and the quick-mix IB-HIM high-performance infiltration mortar, are system-related and do not serve to assess the complete infiltration.
- The application thickness of the quick-mix IB steel system, consisting of the quick-mix IB-SDF steel wire fibres and the quick-mix IB-HIM high-performance infiltration mortar, must be adapted to the substrate, its condition and later use.
- For further information on creating a substrate system in the quick-mix IB steel system, please refer to the technical data sheets of the quick-mix IB-SDF steel wire fibre and the quick-mix IB-VBA connecting anchor.

PACKAGING

- 25 kg/sack
- loose in silo

STORAGE

- Store sacks appropriately and in dry conditions on pallets.

QUANTITY REQUIRED / YIELD

- Consumption:
 - for 25 mm steel wire fibre carpet: approx. 50 kg/m²
 - for 35 mm steel wire fibre carpet: approx. 70 kg/m²
 - for 45 mm steel wire fibre carpet: approx. 90 kg/m²
- yield: app. 15 l fresh mortar per 25 kg/sack



TECHNICAL DATA

Product type	High performance infiltration mortar
Grain	0 – 1 mm
Water requirement	approx. 6.0 l per 25 kg/sack
Processing temperature	+5°C up to +35°C
Fresh raw density	approx. 2.0 kg/dm ³
Layer thickness	approx. 20 – 45 mm in the quick-mix IB steel system
Compressive strength (after 1 day)	≥ 20 N/mm ²
Compressive strength (after 7 days)	≥ 40 N/mm ²
Compressive strength (after 28 days)	≥ 55 N/mm ²
Flexural strength (after 1 day)	≥ 5 N/mm ²
Flexural strength (after 7 days)	≥ 7 N/mm ²
Flexural strength (after 28 days)	≥ 9 N/mm ²
Fire behaviour	A1 (non-flammable) in accordance with EN 13501

Compressive strengths in the IB steel system:

- ≥ 35 N/mm² (1d)
- ≥ 65 N/mm² (7d)
- ≥ 90 N/mm² (28d)

Flexural strengths in the IB steel system:

- ≥ 12 N/mm² (1d)
- ≥ 15 N/mm² (7d)
- ≥ 20 N/mm² (28d)

Modulus of elasticity (dynamic) in the IB steel system:

48,761 N/mm²

All data are average values which have been obtained under laboratory conditions in accordance with relevant test standards and application trials at +20°C and 65% relative humidity. Deviations are possible under practical conditions.

SAFETY AND DISPOSAL INSTRUCTIONS

Safety	<ul style="list-style-type: none">■ This product produces an alkaline reaction when it comes into contact with moisture/water. Therefore ensure that skin and eyes are protected. If it should come into contact with the skin or eyes, rinse them thoroughly with water. See a doctor immediately if it comes into contact with the eyes.■ Follow further instructions in the safety data sheet.
GISCODE	<ul style="list-style-type: none">■ ZP1 (products containing cement, low-chromate)
Disposal	<ul style="list-style-type: none">■ Completely empty and recycle the packaging.■ Dispose of the material in accordance with the official regulations.■ Dispose of hardened product in accordance with the local regulations. Do not allow to enter the sewer system. Dispose of the hardened product in the same way as concrete waste and slurries. Waste code according to the Ordinance on the European Waste Catalogue depending on the origin: 17 01 01 (concrete) or 10 13 14 (concretewaste and concrete slurries).

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GENERAL INFORMATION

This information sheet provides only general recommendations. Should you have any queries relating to a specific application, please contact our technical sales advisor or call our hotline: +49 541 601-601. All of the details given are based on our current knowledge and experience and on the assumption that the materials are professionally applied and used for their normal purpose. All of the details are non-binding and do not release users from their duty to undertake their own tests to ensure suitability for the intended application. Due to the effects of different weather, processing and construction site conditions, no guarantee can be given for the general validity of all details. We reserve the right to make changes as a result of further development of the product and applications engineering. The general rules for construction engineering, the valid standards and guidelines, and the technical working guidelines must be observed. The publication of this technical data sheet renders all previous editions of this data sheet void. Please obtain the latest information from our website.